

1 **What is claimed is:**

2 1. A reflective mechanism for a stage lamp providing an incident light, the
3 reflective mechanism comprising:

4 a mounting device comprising a main plate having a hole through
5 which an incident light from a stage lamp passes;

6 a first power device;

7 a second power device;

8 a rotary device mounted to the mounting device, the rotary device
9 comprising a fixed outer ring, a middle ring concentrically, rotatably
10 mounted in the fixed outer ring, and an inner ring concentrically, rotatably
11 mounted in the middle ring, the inner ring of the rotary device defining a
12 light passage through which the incident light passes, the inner ring being
13 connected to and thus drivable by the first power device, the middle ring
14 being connected to and thus drivable by the second power device;

15 a rotary frame securely attached to the middle ring to turn therewith,
16 the rotary frame including a hole through which the incident light passes;

17 a reflective device comprising a mirror frame rotatably mounted to the
18 rotary frame and a mirror means mounted to the mirror frame for
19 reflecting the incident light passing through the hole of the rotary frame;
20 and

21 a transmission device including a first transmission member securely
22 mounted to the inner ring to turn therewith, the transmission device further
23 including a second transmission member securely mounted to the mirror
24 frame to turn therewith, the second transmission member being connected
25 to the first transmission member.

- 1 2. The reflective mechanism as claimed in claim 1, further comprising a
2 damping device mounted to the main plate for absorbing vibrations as a
3 result of operation of the first power device and the second power device.
- 4 3. The reflective mechanism as claimed in claim 2, further comprising two
5 positioning plates securely mounted to the main plate, each said
6 positioning plate including a first stop plate, the main plate including two
7 second stop plates, said damping device including a screw secured to a
8 respective said first stop plate and a respective said second stop plate, said
9 damping device further including a spring mounted around the screw and
10 attached between the respective first stop plate and the respective second
11 stop plate.
- 12 4. The reflective mechanism as claimed in claim 1, wherein the first power
13 device comprises a first motor having an output shaft, a first gear being
14 securely mounted to the output shaft of the first motor to turn therewith,
15 the second power device comprising a second motor having an output
16 shaft, a second gear being securely mounted to the output shaft of the
17 second motor to turn therewith.
- 18 5. The reflective mechanism as claimed in claim 4, wherein the first power
19 device further comprises a third gear coaxially, securely mounted to the
20 inner ring to turn therewith, the third gear being connected to and thus
21 driven by the first gear of the first motor, the second power device further
22 comprising a fourth gear coaxially, securely mounted to the middle ring to
23 turn therewith, the fourth gear being connected to and thus driven by the
24 second gear of the second motor.
- 25 6. The reflective mechanism as claimed in claim 5, wherein the first gear and
26 the third gear are connected by a belt.

- 1 7. The reflective mechanism as claimed in claim 5 wherein the third gear and
2 the fourth gear are connected by a belt.
- 3 8. The reflective mechanism as claimed in claim 1, further comprising a first
4 sensor and a second sensor mounted to the main plate, a first magnetic
5 element being mounted to the third gear, a second magnetic element being
6 mounted to the fourth gear, the first sensor detecting a position of the first
7 magnetic element to thereby detect a position of the third gear, thereby
8 providing a zeroing function for the third gear, the second sensor detecting
9 a position of the second magnetic element to thereby detect a position of
10 the fourth gear, thereby providing a zeroing function for the fourth gear.
- 11 9. The reflective mechanism as claimed in claim 1, further comprising plural
12 positioning rods securely mounted to the main plate, a mounting plate
13 being securely mounted to said plural positioning rods and including a
14 hole aligned with the hole of the main plate and the hole of the rotary
15 frame, the outer ring of the rotary device being securely mounted to the
16 mounting plate with the light passage aligning with the hole of the
17 mounting plate.
- 18 10. The reflective mechanism as claimed in claim 1, wherein the first
19 transmission member is a first bevel gear and the second transmission
20 member is a second bevel gear meshed with the first bevel gear.
- 21 11. The reflective mechanism as claimed in claim 1, wherein the first
22 transmission member is a first rotational wheel and the second
23 transmission member is a second rotational wheel, further comprising a
24 bracket securely mounted to the rotary frame, a guide wheel being
25 rotatably mounted to the bracket, a belt being mounted around the first
26 rotational wheel, the guide wheel, and the second rotational wheel.

1 12. A reflective mechanism for a stage lamp providing an incident light, the
2 reflective mechanism comprising:

3 a mounting device comprising a main plate having a hole through
4 which an incident light from a stage lamp passes;

5 a first power device mounted to the main plate;

6 a second power device mounted to the main plate;

7 a rotary device mounted to the mounting device, the rotary device
8 comprising a fixed outer ring, a first lining ring, a middle ring
9 concentrically, rotatably mounted in the fixed outer ring, a second lining
10 ring, an inner ring concentrically, rotatably mounted in the middle ring,
11 and a positioning ring, the inner ring of the rotary device defining a light
12 passage through which the incident light passes, the inner ring having a
13 first side connected to and thus drivable by the first power device and a
14 second side, the first lining ring being securely attached to a side of the
15 middle ring to turn therewith, the first lining ring being connected to and
16 thus drivable by the second power device, the second lining ring being
17 securely attached to another side of the middle ring to turn therewith, the
18 positioning ring being securely attached to the second side of the inner
19 ring to turn therewith;

20 a rotary frame securely attached to the second lining ring to turn
21 therewith, the rotary frame including a hole through which the incident
22 light passes;

23 a reflective device comprising a mirror frame rotatably mounted to the
24 rotary frame and a mirror means mounted to the mirror frame for
25 reflecting the incident light passing through the hole of the rotary device;
26 and

1 a transmission device including a first transmission member securely
2 mounted to the positioning ring to turn therewith, the transmission device
3 further including a second transmission member securely mounted to the
4 mirror frame to turn therewith, the second transmission member being
5 connected to the first transmission member.

6

10054403-012202